Claims

I claim:

1. A wireless tracking device comprising

(a) a housing enclosing

a tamper detector,

memory,

a processor,

a cellular modem, and

a GPS receiver;

(b) a battery;

(c) a securing strap having a first end attached to the housing.

2. The wireless personal tracking device of claim 1 wherein the battery is located in the securing strap.

3. The wireless personal tracking device of claim 2 wherein a second battery is located in the housing.

4. The wireless personal tracking device of claim 1 wherein the battery is rechargeable and when fully charged will operate the device for at least 21 days.

5. The wireless personal tracking device of claim 1 wherein the tamper detector is a light sensor in the housing.

6. The wireless personal tracking device of claim 1 wherein the tamper detector is a magnetic field sensor that is activated if metal components of the housing are dislocated.

7. The wireless personal tracking device of claim 1 wherein the tamper detector is an LED receiver, and an LED emitter is used to send a light frequency out over an optical cable in the securing strap and to the LED receiver.

8. The wireless personal tracking device of claim 1 wherein the device is attached to a person utilizing a lock bracket and a locking pin.

9. The wireless personal tracking device of claim 8 wherein the tamper detector is activated by the absence of the locking pin.

10. The wireless personal tracking device of claim 8 wherein the housing has lateral openings and the lock bracket has an upstanding pin with a lateral opening that can be received within the housing, such that the locking pin passes through the housing lateral openings and the upstanding pin lateral opening.

11. The wireless personal tracking device of claim 10 wherein the securing strap extends from its first end about the arm or leg of a person and a second opposite end of the securing strap has an opening that is received on the upstanding pin of the lock bracket and the second end is held between the lock bracket and the housing.

12. A wireless personal tracking device of the type having a housing, a processor, memory, a cellular modem, and a GPS receiver for use in a tracking system to provide for the monitoring and locational tracking of a plurality of monitored persons at an administrative hub which receives GPS data and in response to a timing queue or instruction transmits the GPS data to a cellular network, wherein the cellular network receives the GPS data and collects assisted GPS data and determines the geolocation of the device and provides the geolocation information of the device to the administrative hub.

13. The wireless personal tracking device of claim 12 wherein the cellular network provides the GPS data and assisted GPS data to a location aggregator that provides the geolocation information of the device to the administrative hub.

14. The wireless personal tracking device of claim 13 wherein the location aggregator filters the GPS data and assisted GPS data to correct for erroneous data elements.

15. A wireless personal tracking device of the type having a housing, a processor, memory, a cellular modem, and a GPS receiver for use in a tracking system to provide for the monitoring and locational tracking of a plurality of monitored persons at an administrative hub which receives GPS data and in response to a timing queue or instruction transmits the GPS data to a cellular network, wherein a message may be communicated from the administrative hub and broadcast to the device where the message is received by the cellular modem and processed so that selected message data is conveyed to an embedded application in the device.

16. The wireless personal tracking device of claim 15 wherein the embedded application generates an acknowledgement for the received message that is transmitted to the administrative hub.

17. The wireless personal tracking device of claim 15 wherein the message contains a security token that is verified by the device before processing the message data.

18. The wireless personal tracking device of claim 15 wherein the message is generated by an administrative user in a remote location by communicating with the administrative hub.

19. A wireless personal tracking device of the type having a housing, a processor, memory, a cellular modem, and a GPS receiver for use in a tracking system to provide for the monitoring and locational tracking of a plurality of monitored persons at an administrative hub which receives GPS data and in response to a timing queue or instruction transmits the GPS data to a cellular network, wherein an embedded application in the device generates a message that is transmitted to and received by the administrative hub.

20. The wireless personal tracking device of claim 19 wherein the message is an alarm condition.